

Listing of Claims:

Claims 1-9 (Canceled).

10. (currently amended) A method of producing a transgenic mouse comprising:

(a) introducing a vector into a mouse embryo or a mouse ES cell and transferring said ES cell into a zygote;

(b) transferring said embryo or said zygote comprising said ES cell into a pseudopregnant female mouse;

(c) allowing said embryo or zygote to develop into an offspring;

(d) selecting an offspring that expresses said agouti cDNA and has a coat color phenotype;

wherein said vector comprises: a first transgene expression cassette comprising mouse agouti cDNA operably linked to a human keratinocyte specific K14 promoter, a second transgene expression cassette comprising RNA polymerase II large subunit promoter, and a chicken beta-globulin HS4 insulator; wherein said insulator and said first transgene expression cassette are located at the 5' or 3' end of said second transgene expression cassette; the number of copies of said chicken beta-globin HS4 insulator is 1-6; and said insulator is in the same or opposite orientation relative said to said first and second transgene expression cassettes in said vector.

11. (Previously presented) A vector comprising a first transgene expression cassette comprising mouse agouti cDNA operably linked to a human keratinocyte specific K14 promoter, a second transgene expression cassette comprising RNA polymerase II large

subunit promoter, and a chicken beta-globulin HS4 insulator; wherein said insulator and said first transgene expression cassette are located at the 5' or 3' end of said second transgene expression cassette; the number of copies of said chicken beta-globin HS4 insulator is 1-6; and said insulator is in the same or opposite orientation relative said to said first and second transgene expression cassettes in said vector.

Claims 12-17 (canceled).

18. (Currently amended) A method of producing a transgenic mouse comprising:

- (a) introducing a vector into a mouse embryo or a mouse ES cell and transferring said ES cell into a zygote;
- (b) transferring said embryo or said zygote comprising said ES cell into a pseudopregnant female mouse;
- (c) allowing said embryo or zygote to develop into an offspring;
- (d) selecting an offspring that expresses said mouse cDNA and has a coat color phenotype;

wherein said vector comprises: ~~a dominant mouse coat color expression cassette~~ first transgene expression cassette comprising mouse agouti cDNA operably linked to a promoter, a second transgene expression cassette comprising RNA polymerase II large subunit promoter, and a chicken beta-globulin HS4 insulator.

19. (Currently amended) The method of claim 18 wherein said ~~dominant mouse coat color transgene expression cassette comprises mouse agouti cDNA operably linked to promoter~~ is a human keratinocyte specific K14 promoter.

20. (Currently amended) The method of claim 18 wherein said ~~dominant mouse coat color transgene expression cassette comprises mouse cDNA operably linked to~~

promoter is a mouse tyrosinase promoter.

21. (Currently amended) The method of claim 18 wherein said insulator and said first transgene expression cassette are placed at the 5' or 3' end of said second transgene expression cassette.

22. (Previously presented) The method of claim 18 wherein the number of copies of said chicken beta-globin HS4 insulator is 1-6.

23. (Currently amended) The method of claim 18 wherein said insulator is in the same or opposite orientation relative to said first and second transgene expression cassettes.

24 (Currently amended) A vector comprising a ~~dominant coat color expression cassette~~ first transgene expression cassette comprising mouse agouti cDNA operably linked to a promoter, a second transgene expression cassette comprising RNA polymerase II large subunit promoter, and a chicken beta-globulin HS4 insulator.

25. (Currently amended) The vector of claim 24 wherein said ~~dominant mouse coat color expression cassette comprises mouse agouti cDNA operably linked to~~ promoter is a human keratinocyte specific K14 promoter.

26. (Currently amended) The vector of claim 24 wherein said ~~dominant mouse coat color transgene expression cassette comprises mouse cDNA operably linked to~~ promoter is a mouse tyrosinase promoter.

27. (Currently amended) The vector of claim 24 wherein said insulator and said first transgene expression cassette are placed at the 5' or 3' end of said second transgene expression cassette.

28. (Previously presented) The vector of claim 24 wherein the number of copies of said chicken beta-globin HS4 insulator is 1-6.

29. (Currently amended) The vector of claim 24 wherein said insulator is in the same or opposite orientation relative to said first and second transgene expression cassettes.